

REMARKS

I. Introduction

Claims 1, 4, 5, and 9 have been amended, and new claim 10 has been introduced. Claims 1 to 10 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are in allowable condition.

Applicants thank the Examiner for approving the corrected drawings filed on June 16, 2003.

II. Rejection of Claims 4 and 5 under 35 U.S.C. § 112

Claims 4 and 5 were rejected under 35 U.S.C. § 112, second paragraph. As suggested by the Examiner, claims 4 and 5 have been amended to recite "in the fault condition." Withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 2 and 5 under 35 U.S.C. § 102(b)

Claims 2 and 5 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,248,191 ("Kondo").

To anticipate a claim under § 102, a single prior art reference must identically disclose each and every claim element. See Lindeman Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claim invention, arranged as in the claim. Lindeman, 703 F.2d 1458 (Emphasis added).

Claim 2 and claim 5 recite that "when the fault occurs in one of an accumulator circuit, a pump circuit, and the first power circuit, a valve is activated at a brake actuator of a front one of the wheel brakes, the valve

isolating the pump circuit from the accumulator circuit.” In support of the rejection, the Examiner contends that “[w]hen there exist[s] an electric failure, valve 11 is actuated to isolate accumulator 30 from pump 31, column 4, lines 61-66 and column 1, lines 55-60.” However, the cited sections of Kondo merely state the following: a) “[the pressure control valve] can allow the automotive brake system to perform its normal function even in the event of an electric failure, such as a wire disconnection, of the electric signal transmission system of the automobile braking system” (col. 1, lines 55-59); and b) “[w]hen the wheel 34 is braked normally, the coil 3 is not energized and hence no electromagnetic forces are produced thereby. The stepped spool 7 and the shutoff valve 11 are pressed to the left under the resiliency of the spring 8, closing the fluid passage 12a with the shutoff valve 11.” (Col. 4, l. 61-66). Nothing in the cited sections of Kondo actually teaches that “when the fault occurs in one of an accumulator circuit, a pump circuit, and the first power circuit, a valve is activated at a brake actuator of a front one of the wheel brakes, the valve isolating the pump circuit from the accumulator circuit.” For at least this reason, claim 2 and claim 5 are not anticipated by Kondo.

Independent of the above, claim 5 further recites that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited.” In response, the Examiner contends that “Kondo’s method of brake control would limit the speed of the vehicle (i.e. normal braking mode).” However, the Examiner’s contention is inherently contradictory to the claimed limitation: in claim 5, the speed of the motor vehicle is limited **not merely in a normal braking mode, but when there is a fault condition**, which is completely different from merely “allow[ing] the automotive brake system to perform its normal function even in the event of an electric failure,” as recited in col. 1, lines 55-59 of Kondo. For at least this additional reason, claim 5 is not anticipated by Kondo.

In view of the above discussion, Applicants respectfully submit that anticipation rejection of claims 2 and 5 should be withdrawn.

IV. Rejection of Claims 1, 3, 4, 6, and 8 under 35 U.S.C. § 103(a)

Claims 1, 3, 4, 6 and 8 stand rejected under 35 U.S.C. § 103(a).

It is contended that these claims are unpatentable over U.S. Patent No. 5,456,523 ("Boehringer") in view of U.S. Patent No. 5,952,799 ("Maisch"). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that these criteria for obviousness are not met here.

As amended, claims 1 and 4 recite that "in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited." Boehringer teaches that "[t]he system has a first hydraulic system coupled to the brake of a first wheel through a first switching valve, and a second hydraulic system coupled to the brake of a second wheel through a second switching valve. Each switching valve will switch the coupled brake to the other hydraulic system, if the pressure within its system falls below a threshold value." (Col. 2, lines 7-13). Maisch teaches that "two different independent vehicle electrical systems are used, so that the braking apparatus remains at least partially operational even if one of the electrical systems fail." (Col. 2, lines 36-39). Once again, while both Boehringer and Maisch teach redundant control valves to ensure some level of **normal operation** of the braking system in the case of a fault, neither Boehringer nor Maisch teaches that "in the fault condition of one of the wheel brakes, **a speed of the motor**

vehicle is limited,” as recited in claims 1 and 4, which is completely different from merely maintaining a normal operation of the braking system. For at least this reason, claims 1 and 4 are not rendered obvious by the combination of Boehringer and Maisch.

Independent of the above, regarding claim 4, the Office Action states that “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Boehringer’s method to have including steps to control the braking force based on different fault conditions to further enhancing the safety of the vehicle as taught by Maisch.” It is respectfully submitted that the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office Action’s generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that the Office Action reflects a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added).

Accordingly, it is believed and respectfully submitted that the

present Office Action offers only conclusory hindsight, reconstruction and speculation, which does not constitute evidence that will support a proper obviousness finding.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” -- which is not the case here -- there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab’s invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Again, it is believed that there have been no such findings.

Accordingly, there is no evidence that the references relied upon, whether taken alone, combined or modified, would provide the features and benefits of claim 4. Furthermore, claims 3, 6 and 8 depend on claim 1 and are allowable for at least the same reasons given above in support of patentability of claim 1. It is therefore respectfully submitted that claims 1, 3, 4, 6 and 8 are allowable over the combination of Boehringer

and Maisch.

V. Rejection of Claim 7 under 35 U.S.C. § 103(a)

Claim 7 stands rejected under 35 U.S.C. § 103(a). It is contended that this claim is unpatentable over Kondo in view of U.S. Patent No. 6,296,325 ("Corio"). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that these criteria for obviousness are not met here.

Claim 7 depends from claim 2. Consequently, all claim limitations of claim 2 of the present application that Kondo and Corio do not teach or suggest (Kondo was discussed above in connection with the § 102(b) rejection of claim 2) are also not taught or suggested with respect to claim 7 of the present application. The combination of Kondo and Corio clearly fails to teach that "when the fault occurs in one of an accumulator circuit, a pump circuit, and the first power circuit, a valve is activated at a brake actuator of a front one of the wheel brakes, the valve isolating the pump circuit from the accumulator circuit," as recited in claim 2. Accordingly, claim 7 is not rendered obvious by Kondo and Corio for at least the reasons stated above. For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. § 103(a) with respect to claim 7 is hereby respectfully requested.

VI. Rejection of Claims 1, 3, and 6 under 35 U.S.C. § 103(a)

Claims 1, 3, and 6 stand rejected under 35 U.S.C. § 103(a). It is contended that these claims are unpatentable over Corio in view of Maisch.

Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that these criteria for obviousness are not met here.

As amended, claim 1 recites that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited.” Corio teaches that brake control units “BSCU1 and BSCU2 are redundant and BSCU2 receives operating power from the power bus PWR2 (AC2/DC2), brake control operation and antiskid processing may still be carried out.” (Col. 6, lines 50-54). Maisch teaches that “two different independent vehicle electrical systems are used, so that the braking apparatus remains at least partially operational even if one of the electrical systems fail.” (Col. 2, lines 36-39). While both Corio and Maisch disclose redundant control units or electrical systems to ensure some level of **normal operation** of the braking system in the case of a fault, neither Corio nor Maisch teaches that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited,” as recited in claim 1, which is completely different from merely maintaining normal operation of the braking system. Accordingly, claim 1 is not rendered obvious by the combination of Corio and Maisch. Claims 3 and 6 depend from claim 1 and are not rendered obvious by the combination of Corio and Maisch for at least the same reasons given above in support of allowability of claim 1. For at least the reasons discussed above, withdrawal of the rejection of claims 1, 3 and 6 under 35 U.S.C. § 103(a) is hereby respectfully requested.

VII. Rejection of Claim 8 under 35 U.S.C. § 103(a)

Claim 8 stands rejected under 35 U.S.C. § 103(a). It is contended that this claim is unpatentable over Corio in view of Maisch and further in view of Boehringer. Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that these criteria for obviousness are not met here.

Claim 8 depends on claim 1. As amended, claim 1 recites that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited.” Corio teaches that brake control units “BSCU1 and BSCU2 are redundant and BSCU2 receives operating power from the power bus PWR2 (AC2/DC2), brake control operation and antiskid processing may still be carried out.” (Col. 6, lines 50-54). Maisch teaches that “two different independent vehicle electrical systems are used, so that the braking apparatus remains at least partially operational even if one of the electrical systems fail.” (Col. 2, lines 36-39). Boehringer teaches that “[t]he system has a first hydraulic system coupled to the brake of a first wheel through a first switching valve, and a second hydraulic system coupled to the brake of a second wheel through a second switching valve. Each switching valve will switch the coupled brake to the other hydraulic system, if the pressure within its system falls below a threshold value.” (Col. 2, lines 7-13). While Corio, Maisch and Boehringer teach one form or another of redundancy in the brake control system to ensure some level of normal operation in case of a fault, these references clearly do not teach that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited,” as recited

in claim 1. Accordingly, claim 8, which depends from claim 1, is not rendered obvious by the combination of Corio, Maisch and Boehringer for at least the same reasons given above in support of allowability of claim 1. For at least the reasons discussed above, withdrawal of the rejection of claim 8 under 35 U.S.C. § 103(a) is hereby respectfully requested.

VIII. Rejection of Claim 9 under 35 U.S.C. § 103(a)

Claim 9 stands rejected under 35 U.S.C. § 103(a). It is contended that claim 9 is unpatentable over Corio in view of Maisch. Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that these criteria for obviousness are not met here.

Claim 9, as amended, recites that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is limited.” Corio teaches that brake control units “BSCU1 and BSCU2 are redundant and BSCU2 receives operating power from the power bus PWR2 (AC2/DC2), brake control operation and antiskid processing may still be carried out.” (Col. 6, lines 50-54). Maisch teaches that “two different independent vehicle electrical systems are used, so that the braking apparatus remains at least partially operational even if one of the electrical systems fail.” (Col. 2, lines 36-39). While both Corio and Maisch disclose redundant control units or electrical systems to ensure some level of **normal operation** of the braking system in the case of a fault, neither Corio nor Maisch teaches that “in the fault condition of one of the wheel brakes, a speed of the motor vehicle is

limited,” as recited in claim 9, which is completely different from merely maintaining normal operation of the braking system. Accordingly, claim 9 is not rendered obvious by the combination of Corio and Maisch. For at least the reasons discussed above, withdrawal of the rejection of claim 9 under 35 U.S.C. § 103(a) is hereby respectfully requested.

IX. New Claim 10

New claim 10 substantially corresponds to claim 1 presented in the Amendment dated June 12, 2003, with the exception that new claim 10 recites “first electrical power circuit” and “second electrical power circuit,” which limitations are clearly supported in the original specification, e.g., p. 4, ll. 13-20. Regarding the limitations of claim 10, the Abstract and the specification of Boehringer clearly indicate that the disclosed brake system merely includes two purely hydraulic systems which provide redundancy in case of failure in one of the two hydraulic systems, and there is no mention of use of electrical power circuits in Boehringer. Similarly, none of the other cited prior art references teaches the limitations of claim 10. For at least these reasons, claim 10 is allowable over the cited prior art references.

CONCLUSION

In view of the above amendments and remarks, it is respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

The Office is authorized to charge any fees associated with this Amendment to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

KENYON & KENYON

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By: 

Richard L. Mayer
Reg. No. 22,490
One Broadway
New York, NY 10004
(212) 425-7200

*by
R. no.
36,197)*

CUSTOMER NO. 26646
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